

MERSANA THERAPEUTICS, INC.
840 Memorial Drive
Cambridge, MA 02139

September 12, 2018

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
Office of Healthcare and Insurance
100 F. Street, N.E.
Washington, D.C. 20549

Attention: Abigail Jacobs
Erin Jaskot

Re: Mersana Therapeutics, Inc.
Registration Statement on Form S-3 (File No. 333-226055)
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Mersana Therapeutics, Inc. (the "Company") hereby requests that the Securities and Exchange Commission (the "Commission") accelerate the effective date of the Company's Registration Statement on Form S-3 (File No. 333-226055) (the "Registration Statement"), so that it will be declared effective at 12:00 p.m. Eastern Time on September 14, 2018, or as soon as possible thereafter. The Company hereby authorizes Marc Rubenstein and William Michener, counsel to the Company, to orally modify or withdraw this request for acceleration.

It would be appreciated if, as soon as the Registration Statement is declared effective, you would inform William Michener of Ropes & Gray LLP, counsel to the Company, at (617) 951-7247.

Very truly yours,

MERSANA THERAPEUTICS, INC.

By: /s/ David A. Spellman
David A. Spellman
Chief Financial Officer
